



APPLICATIONS UNDER EXAMINATION

RASPBERRY

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(Rubus idaeus)

Proposed denomination:	‘DrisRaspFourteen’
Trade name:	Pilar
Application number:	19-10013
Application date:	2019/01/22 (priority claimed)
Applicant:	Driscoll’s, Inc., Watsonville, California, United States of America
Agent in Canada:	Lavery, De Billy, S.E.N.C.R.L. - LLP, Montreal, Quebec
Breeder:	Brian K. Hamilton, Driscoll’s, Inc., Watsonville, California, United States of America Matthias D. Vitten, Driscoll’s, Inc., Watsonville, California, United States of America Moises D. Gonzalez, Driscoll’s, Inc., Watsonville, California, United States of America

Note: The applicant has requested an exemption from compulsory licensing to allow time to multiply and distribute propagating material of the variety. If the exemption is granted, it may be allowed for two years from the date rights are granted for the variety.

Varieties used for comparison: ‘DrisRaspThirteen’ and ‘DrisRaspEight’

Summary: *Vegetative bud burst on the previous season’s canes of ‘DrisRaspFourteen’ occurs early in the season while it occurs late season for ‘DrisRaspThirteen’ and very late season for ‘DrisRaspEight’. The emergence of the current season’s canes occurs early in the season for ‘DrisRaspFourteen’ while it occurs mid-season for ‘DrisRaspThirteen’ and late season for ‘DrisRaspEight’. The plants of ‘DrisRaspFourteen’ have many current season’s canes whereas those of ‘DrisRaspThirteen’ have a medium number and those of ‘DrisRaspEight’ have few to a medium number. Both the previous and current season’s canes of ‘DrisRaspFourteen’ are longer than those of the reference varieties. The density of spines on ‘DrisRaspFourteen’ is sparse whereas it is dense on ‘DrisRaspThirteen’ and of medium density on ‘DrisRaspEight’. Flowering on the current season’s canes of ‘DrisRaspFourteen’ begins early in the season while it begins mid to late season for ‘DrisRaspThirteen’ and very late season for ‘DrisRaspEight’. ‘DrisRaspFourteen’ has a small flower whereas that of ‘DrisRaspThirteen’ is medium sized and that of ‘DrisRaspEight’ is medium to large. The fruit of ‘DrisRaspFourteen’ is medium to long whereas that of ‘DrisRaspThirteen’ is short to medium and that of ‘DrisRaspEight’ is short. The fruit of ‘DrisRaspFourteen’ has a medium red colour whereas the fruit of the reference varieties have a dark red colour. Fruit ripening on the current season’s canes of ‘DrisRaspFourteen’ begins very early to early in the season while it begins late in the season for ‘DrisRaspThirteen’ and very late in the season for ‘DrisRaspEight’.*

Description:

PLANT: upright growth habit, many current season’s canes, bears fruit on previous season’s cane in summer and on current season’s cane in autumn, early season vegetative bud burst

VERY YOUNG SHOOT: weak intensity of anthocyanin colouration of apex during rapid growth, early season emergence

CURRENT SEASON’S CANE: medium to long, medium bloom, weak intensity of anthocyanin colouration, medium to long internode, vegetative bud of medium length, spines present

PREVIOUS SEASON’S CANE : very long, brown

SPINES: sparse, very small base, short, brown

FRUITING LATERAL: erect to semi-erect attitude, medium length

PEDICEL: absent or very few spines

LEAF: medium green colour on upper side, predominantly five leaflets, weak rugosity, relative position of lateral leaflets is free

LEAFLET: concave in cross-section

TERMINAL LEAFLET: long to very long, medium to broad

FLOWERING: begins early to mid-season on previous season’s cane and early season on current season’s cane

PEDUNCLE: very weak to weak intensity of anthocyanin colouration

FLOWER: small

FRUIT RIPENING: begins early to mid-season on previous season's cane and very early to early season on current season's cane

FRUIT: medium to long, medium width, medium length to width ratio, medium conical shape in lateral view, medium red, medium degree of glossiness, firm, medium adherence to plug

DRUPE: large

FRUITING PERIOD: long on previous season's cane, long to very long on current season's cane

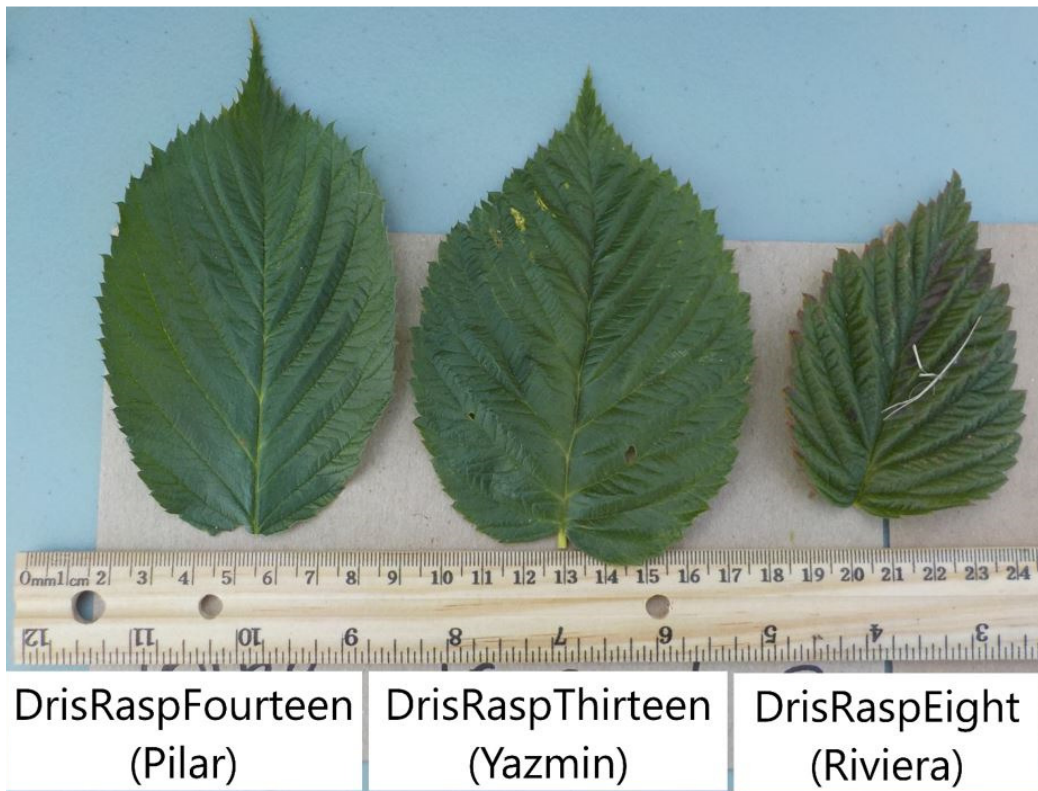
Origin and Breeding: 'DrisRaspFourteen' originated from a controlled cross conducted between the unpatented proprietary varieties 'RB629.4' (female parent) and 'Y454.3' (male parent) in Santa Cruz County, California, USA in April 2009. A single seedling of 'DrisRaspFourteen' was selected in March 2011 in Ventura County, California, USA based on its primocane and florican yield, fruit size, and fruit flavor. 'DrisRaspFourteen' was initially asexually propagated by root cuttings in May 2011. Further propagation and testing continued in Ventura County, California from 2010 to 2018.

Tests and Trials: The comparative trial for 'DrisRaspFourteen' was conducted in Chilliwack, British Columbia during the 2021 growing season. Plants were transplanted in October of 2020 into raised beds, covered with plastic mulch and irrigated with drip lines. The plots were arranged in a RCB design with four replicates. Each replicate consisted of 3 plants for a total of 12 plants of each variety. Plants were spaced approximately 90 centimetres apart within rows and 3 metres between rows. Measurements were taken from 10 plants or parts of 10 plants of each variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

Comparison table for 'DrisRaspFourteen'

	'DrisRaspFourteen'	'DrisRaspThirteen'*	'DrisRaspEight'*
<i>Previous season's canes length (cm)</i>			
mean	248.9	161.3	222.0
std. deviation	29.5	21.5	17.8
<i>Current season's canes length (cm)</i>			
mean	243.0	164.3	177.5
std. deviation	39.9	22.0	30.3

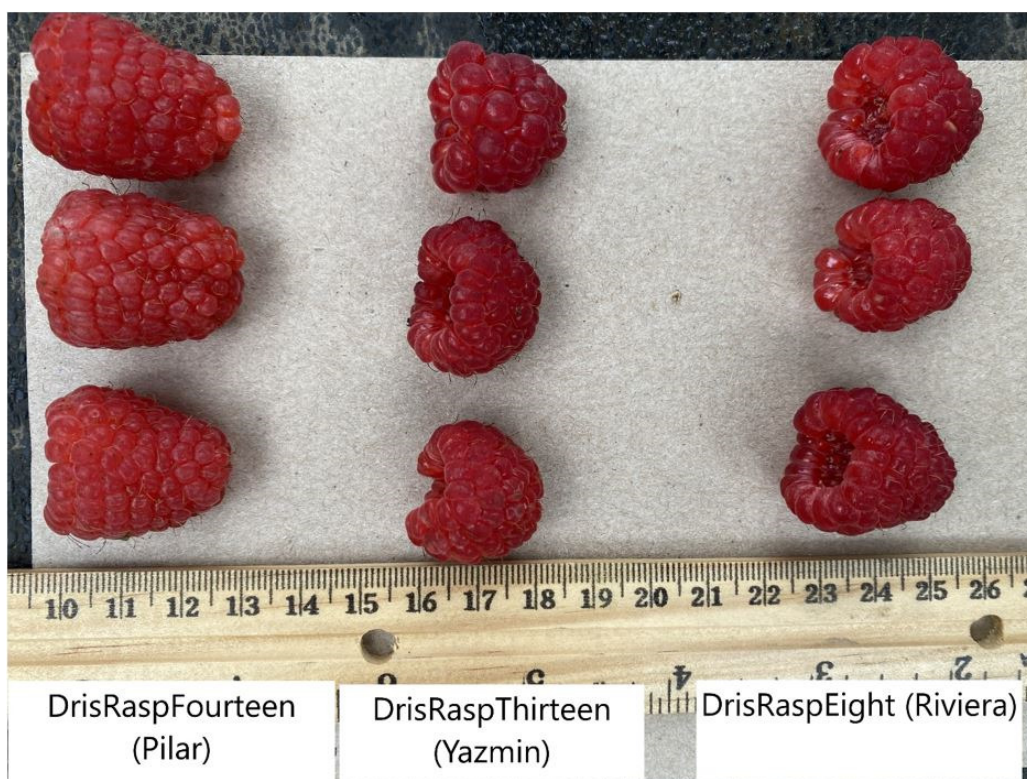
*reference varieties



Raspberry: 'DrisRaspFourteen' (left) with reference varieties 'DrisRaspThirteen' (centre) and 'DrisRaspEight' (right)



Raspberry: 'DrisRaspFourteen' (centre) with reference varieties 'DrisRaspThirteen' (left) and 'DrisRaspEight' (right)



Raspberry: 'DrisRaspFourteen' (left) with reference varieties 'DrisRaspThirteen' (centre) and 'DrisRaspEight' (right)

Proposed denomination: 'NN08002'
Application number: 18-9435
Application date: 2018/04/30
Applicant: Pacific Berries LLC, Ferndale, Washington, United States of America
Agent in Canada: Smart & Biggar LLP, Ottawa, Ontario
Breeder: Joseph Stephens, Motueka, New Zealand

Varieties used for comparison: 'Meeker', 'Wakefield' and 'Chemainus'

Summary: *Vegetative bud burst on the previous season's canes occurs early season for 'NN08002' while it occurs late season for 'Chemainus' and mid-season for 'Meeker' and 'Wakefield'. The plants of 'NN08002' have very many current season's canes whereas those of 'Meeker' and 'Wakefield' have many current season's canes and those of 'Chemainus' have a medium number. The current season's canes of 'NN08002' have a medium intensity of anthocyanin colouration whereas it is absent or very weak to weak on the current season's canes of 'Meeker' and weak on the current season's canes of 'Chemainus'. The previous season's canes of 'NN08002' are longer than those of 'Wakefield'. The previous season's cane of 'NN08002' is brown whereas the previous season's cane of 'Meeker' and 'Wakefield' are greyish brown. The density of spines on 'NN08002' is medium whereas it is dense on 'Meeker' and 'Wakefield' and very sparse to sparse on 'Chemainus'. Flowering begins on the previous season's canes very early in the season for 'NN08002' while it begins mid-season for 'Meeker', mid to late season for 'Chemainus' and late to very late season for 'Wakefield'. The fruit of 'NN08002' is medium to long whereas that of 'Meeker' is short. The fruit of 'NN08002' is dark red whereas that of 'Meeker' is light red and those of 'Wakefield' and 'Chemainus' are a medium red colour. The fruit on the previous season's cane begins to ripen very early season for 'NN08002' while it begins to ripen mid-season for 'Chemainus', late season for 'Meeker' and very late season for 'Wakefield'.*

Description:

PLANT: upright growth habit, very many current season's canes, bears fruit only on previous season's cane in summer, early season vegetative bud burst

VERY YOUNG SHOOT: weak intensity of anthocyanin colouration of apex during rapid growth, early season emergence
 CURRENT SEASON'S CANE: medium to long, absent or very weak bloom, medium intensity of anthocyanin colouration, short to medium length internode, vegetative bud of medium length, spines present
 PREVIOUS SEASON'S CANE : very long, brown
 SPINES: medium density, small base, short, brownish purple
 FRUITING LATERAL: semi-erect attitude, very long

PEDICEL: absent or very few to few spines
 LEAF: medium green colour on upper side, predominantly three leaflets, medium rugosity, relative position of lateral leaflets is free
 LEAFLET: straight in cross-section
 TERMINAL LEAFLET: very long, very broad

FLOWERING: begins very early season on previous season's cane
 PEDUNCLE: very weak to weak intensity of anthocyanin colouration
 FLOWER: small to medium sized

FRUIT RIPENING: begins early season on previous season's cane
 FRUIT: medium to long, narrow to medium width, medium length to width ratio, medium conical shape in lateral view, dark red, medium degree of glossiness, soft to medium firmness, weak to medium adherence to plug
 DRUPE: small
 FRUITING PERIOD: short to medium length on previous season's cane

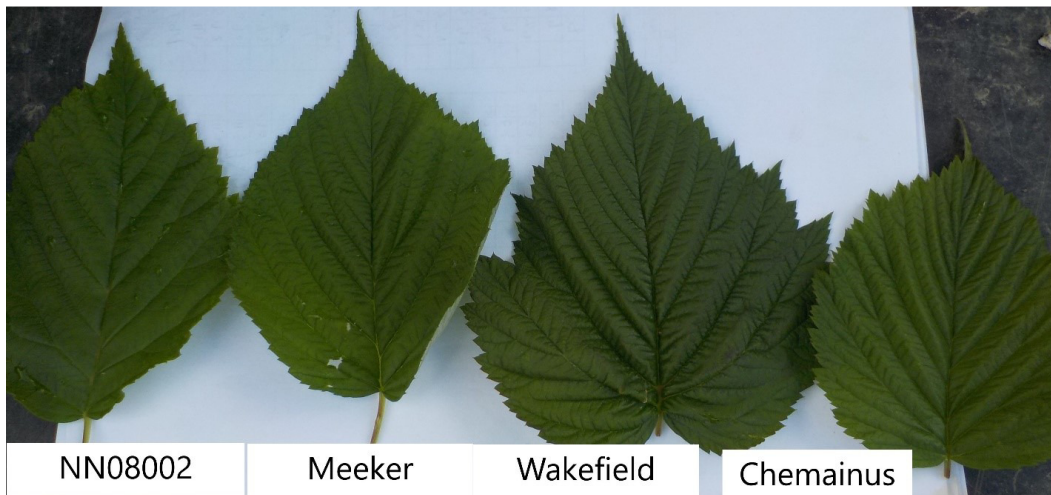
Origin and Breeding: 'NN08002' was created in the course of a planned breeding program in Lyndon, Washington State, USA. It originated from a controlled cross between 'Wakefield' (seed parent) and 'NR7' (pollen parent) made in 2006. 'NN08002' was initially selected from the resulting population of seedlings grown in the field during the summer of 2008. Selection was based on its suitability for machine harvesting and for process markets. 'NN08002' was asexually propagated in 2010 by tissue culture to establish observation plots and replicated trials.

Tests and Trials: The comparative trial for 'NN08002' was conducted in Chilliwack, British Columbia during the 2021 growing season. Plants were transplanted in April of 2017 into raised beds, covered with plastic mulch and irrigated with drip lines. The plots were arranged in a RCB design with 4 replicates. Each replicate consisted of 3 plants for a total of 12 plants of each variety. Plants were spaced approximately 90 centimetres apart within rows and 3 metres between rows. Measurements were taken from 10 plants or parts of 10 plants of each variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

Comparison table for 'NN08002'

	'NN08002'	'Meeker'*	'Wakefield'*	'Chemainus'*
<i>Previous season's cane length (cm)</i>				
mean	300.2	322.1	260.6	273.8
std. deviation	18.6	94.5	16.5	50.0

*reference varieties



Raspberry: 'NN08002' (left) with reference varieties 'Meeker' (centre left), 'Wakefield' (centre right) and 'Chemainus' (right)



Raspberry: 'NN08002' (left) with reference varieties 'Meeker' (centre left), 'Chemainus' (centre right) and 'Wakefield' (right)

Proposed denomination: 'NN12026'
Application number: 18-9437
Application date: 2018/04/30
Applicant: Pacific Berries LLC, Ferndale, Washington, United States of America
Agent in Canada: Smart & Biggar LLP, Ottawa, Ontario
Breeder: Joseph Stephens, Motueka, New Zealand

Variety used for comparison: 'NR7'

Summary: *Vegetative bud burst on the previous season's canes occurs late season for 'NN12026' while it occurs very late season for 'NR7'. During rapid growth, the anthocyanin colouration of the apex of the very young shoot is of medium intensity for 'NN12026' whereas the intensity is weak for 'NR7'. The previous season's canes of 'NN12026' are purplish brown and shorter than those of 'NR7', which are brownish grey. The leaf of 'NN12026' has a strong degree of rugosity whereas the leaf of 'NR7' has a medium degree of rugosity. Flowering begins on the previous season's canes mid-season for 'NN12026' while it begins early season for 'NR7'. The length of the fruiting lateral of 'NN12026' is longer than that of 'NR7'. A single drupe of 'NN12026' is large whereas that of 'NR7' is medium sized. The fruit of 'NN12026' is dark red whereas that of 'NR7' is medium red. The fruit on the previous season's cane begins to ripen very late season for 'NN12026' while it begins to ripen mid-season for 'NR7'.*

Description:

PLANT: upright growth habit, very many current season's canes, bears fruit only on previous season's cane in summer, late season vegetative bud burst

VERY YOUNG SHOOT: medium intensity of anthocyanin colouration of apex during rapid growth

CURRENT SEASON'S CANE: absent or very weak bloom, weak intensity of anthocyanin colouration, very short internode, vegetative bud of short to medium length, spines absent

PREVIOUS SEASON'S CANE : very short to short, purplish brown

FRUITING LATERAL: semi-erect attitude, short to medium length

PEDICEL: spines absent

LEAF: medium green colour on upper side, predominantly three leaflets, strong rugosity, relative position of lateral leaflets is free

LEAFLET: concave in cross-section

TERMINAL LEAFLET: medium length, narrow to medium width

FLOWERING: begins mid-season on previous season's cane

PEDUNCLE: very weak intensity of anthocyanin colouration

FLOWER: small to medium sized

FRUIT RIPENING: begins very late season on previous season's cane

FRUIT: medium length, medium width, small length to width ratio, broad conical shape in lateral view, dark red, weak degree of glossiness, medium firmness, weak adherence to plug

DRUPE: large

FRUITING PERIOD: short to medium length on previous season's cane

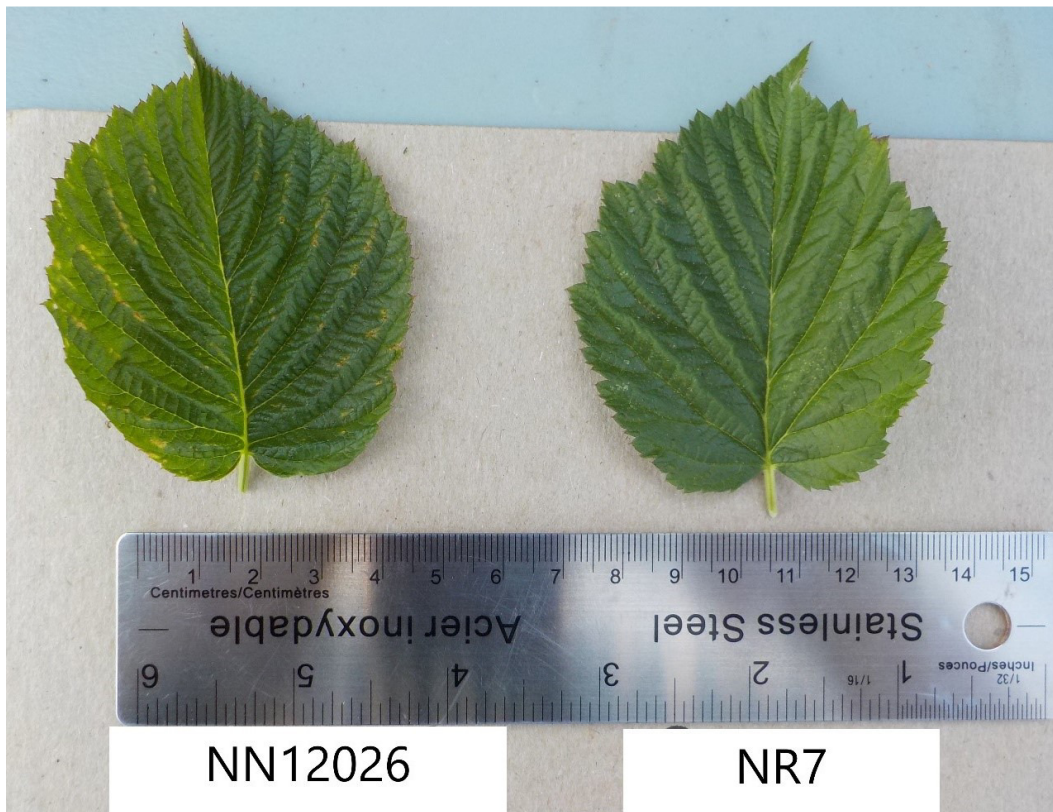
Origin and Breeding: 'NN12026' was created in the course of a planned breeding program in Lyndon, Washington State, USA. It originated from a controlled cross between 'NR19' (seed parent) and 'ZN06017' (pollen parent) made in 2009. 'NN12026' was initially selected from the resulting population of seedlings grown in the field during the summer of 2012. Selection was based on its dwarf character, spineless cane and fruiting quality. 'NN12026' was asexually propagated by root division in 2014 and by tissue culture in 2015, to establish observation plots and replicated trials. While not suited to commercial production, 'NN12026' was selected for ornamental use such as home garden and containers.

Tests and Trials: The comparative trials for 'NN12026' was conducted in Chilliwack, British Columbia during the 2021 growing season. Plants were transplanted in April of 2017 into raised beds, covered with plastic mulch and irrigated with drip lines. The plots were arranged in a RCB design with 4 replicates. Each replicate consisted of 3 plants for a total of 12 plants of each variety. Plants were spaced approximately 90 centimetres apart within rows and 3 metres between rows. Measurements were taken from 10 plants or parts of 10 plants of each variety. Mean differences were significant at the 5% confidence probability level based on a paired Student's t-test.

Comparison table for 'NN12026'

	'NN12026'	'NR7'*
<i>Previous season's cane length (cm)</i>		
mean	54.2	78.6
std. deviation	4.8	11.3
<i>Fruiting lateral length (cm)</i>		
mean	29.8	17.0
std. deviation	6.2	2.3

*reference variety



Raspberry: 'NN12026' (left) with reference variety 'NR7' (right)



Raspberry: 'NN12026' (left) with reference variety 'NR7' (right)